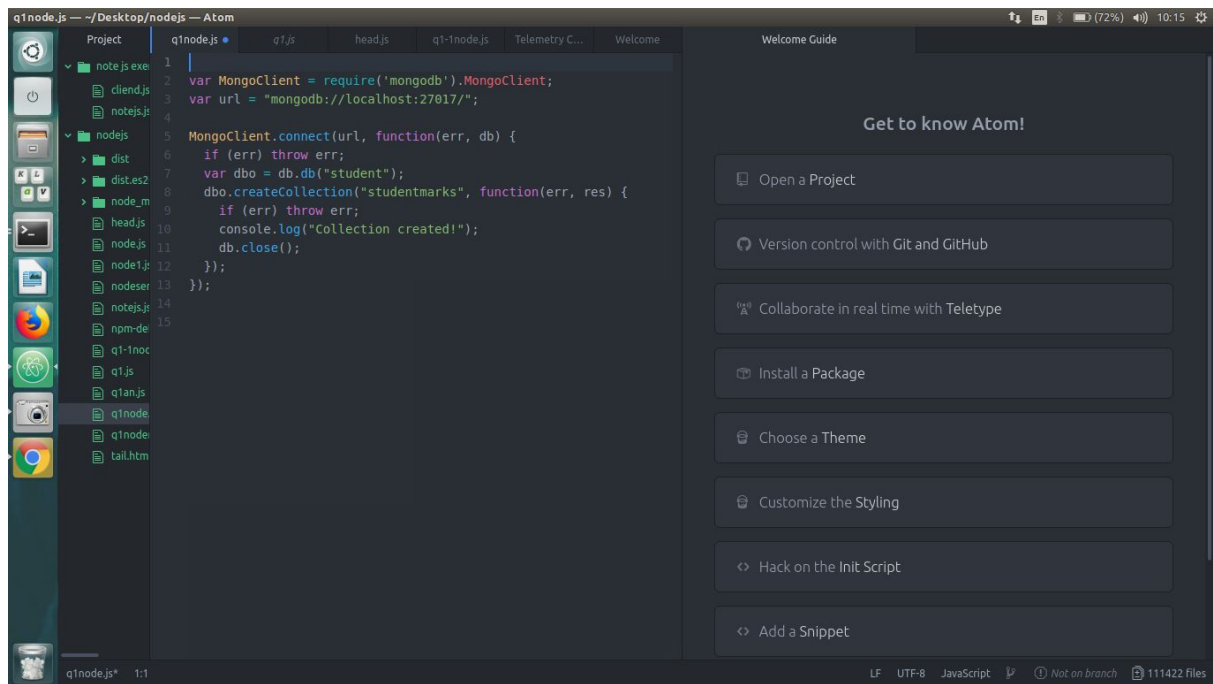


Node MongoDB Exercise 2

- 1) Create a Database called student
- 2) Create a collection called studentmarks

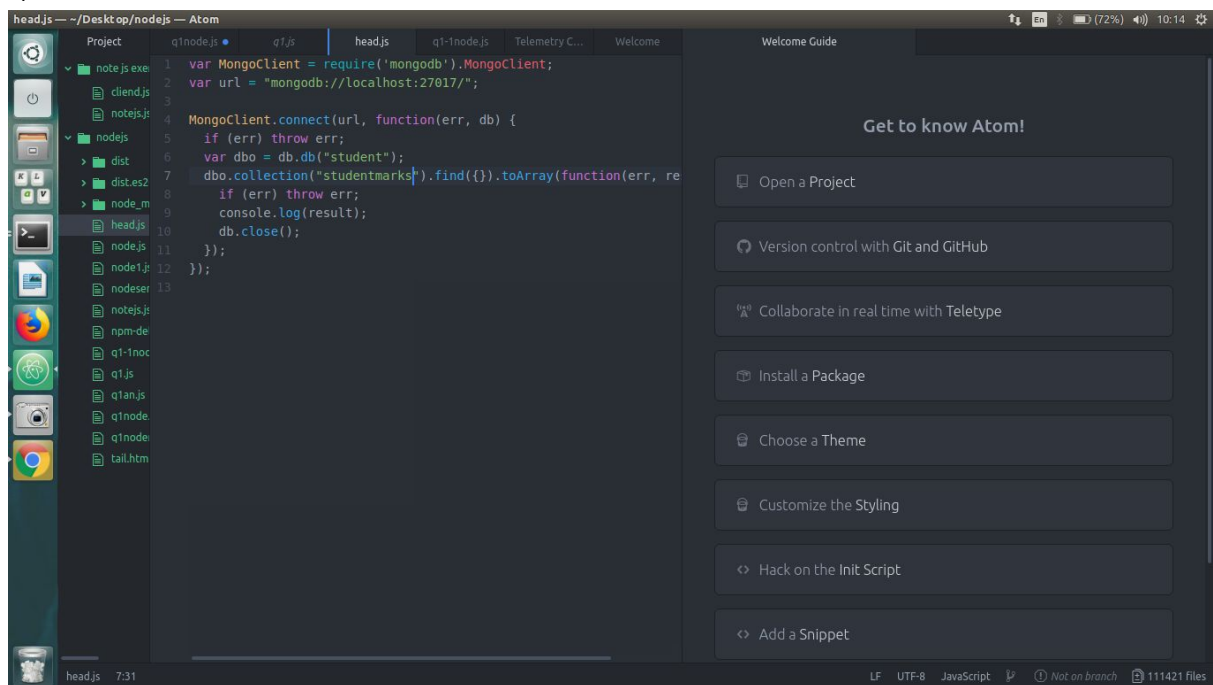


The screenshot shows the Atom editor with a project named 'q1node.js' open. The file 'q1.js' is selected, displaying the following JavaScript code:

```
1 var MongoClient = require('mongodb').MongoClient;
2 var url = "mongodb://localhost:27017/";
3
4 MongoClient.connect(url, function(err, db) {
5   if (err) throw err;
6   var dbo = db.db("student");
7   dbo.createCollection("studentmarks", function(err, res) {
8     if (err) throw err;
9     console.log("Collection created!");
10    db.close();
11  });
12 });
```

The right sidebar shows the 'Welcome Guide' with options like 'Open a Project', 'Version control with Git and GitHub', and 'Collaborate in real time with Teletype'.

- 3) Create the documents listed in above table.



The screenshot shows the Atom editor with the same project 'q1node.js' open. The file 'head.js' is selected, displaying the following JavaScript code:

```
1 var MongoClient = require('mongodb').MongoClient;
2 var url = "mongodb://localhost:27017/";
3
4 MongoClient.connect(url, function(err, db) {
5   if (err) throw err;
6   var dbo = db.db("student");
7   dbo.collection("studentmarks").find({}).toArray(function(err, re
8     if (err) throw err;
9     console.log(result);
10    db.close();
11  });
12 });
```

The right sidebar shows the 'Welcome Guide' with options like 'Open a Project', 'Version control with Git and GitHub', and 'Collaborate in real time with Teletype'.

```
ukladmin@ukladminpc: ~/Desktop/nodejs
maths_marks: 32,
english_marks: 73,
science_marks: 84 ],
{ _id: 5e324cd45c01141074d413b3,
  name: 'Mala',
  maths_marks: '45',
  english_marks: '53',
  science_marks: '72' },
{ _id: 5e324cd45c01141074d413b4,
  name: 'Vanu',
  maths_marks: '80',
  english_marks: '75',
  science_marks: '85' },
{ _id: 5e324cd45c01141074d413b5,
  name: 'Kala',
  maths_marks: '32',
  english_marks: '46',
  science_marks: '53' },
{ _id: 5e324cd45c01141074d413b6,
  name: 'Aruli',
  maths_marks: '78',
  english_marks: '85',
  science_marks: '80' },
{ _id: 5e324cd45c01141074d413b7,
  name: 'Shayu',
  maths_marks: '80',
  english_marks: '76',
  science_marks: '65' },
{ _id: 5e324cd45c01141074d413b8,
  name: 'Kumaran',
  maths_marks: '32',
  english_marks: '73',
  science_marks: '84' },
{ _id: 5e324cd45c01141074d413b9,
  name: 'Lucky',
  maths_marks: '66',
  english_marks: '90',
  science_marks: '45' },
{ _id: 5e324cd45c01141074d413ba,
  name: 'Ova',
  maths_marks: '71',
  english_marks: '75',
  science_marks: '56' },
{ _id: 5e324cd45c01141074d413bb,
  name: 'Raani',
  maths_marks: '41',
  english_marks: '65',
  science_marks: '88' } ]
ukladmin@ukladminpc:~/Desktop/nodejs$
```

4) Increase the maths marks of Mala by 6 marks

The top screenshot shows a terminal window with the following output:

```
at Module._compile (module.js:577:32)
at Object.Module._extensions..js (module.js:586:10)
at Module.load (module.js:494:32)
at tryModuleLoad (module.js:453:12)
at Function.Module._load (module.js:445:3)
at Module.runMain (module.js:611:10)
at run (bootstrap_node.js:394:7)
at startup (bootstrap_node.js:160:9)
at bootstrap_node.js:507:3
ukiadmin@ukiadminpc: ~/Desktop/nodejs$ node head.js
(node:8689) DeprecationWarning: current Server Discovery and Monitoring engine is deprecated, and will be removed in a future version. To use the new Server Discovery and Monitoring engine, pass option { useUnifiedTopology: true } to the MongoClient constructor.
[ { _id: 5e16bb2c3e1ed3c2afe017c9,
  name: 'Mala',
  maths_marks: 57,
  english_marks: 53,
  science_marks: 72 },
  { _id: 5e16bb693e1ed3c2afe017ca,
  name: 'Vanu',
  maths_marks: 80,
  english_marks: 75,
  science_marks: 85 },
  { _id: 5e16bb693e1ed3c2afe017cb,
  name: 'Kala',
  maths_marks: 32,
  english_marks: 46,
  science_marks: 53 },
  { _id: 5e16bb693e1ed3c2afe017cc,
  name: 'Arul',
  maths_marks: 78,
  english_marks: 85,
  science_marks: 80 },
  { _id: 5e16bc113e1ed3c2afe017cd,
  name: 'Shayu',
  maths_marks: 80,
  english_marks: 76,
  science_marks: 65 },
  { _id: 5e16bc363e1ed3c2afe017ce,
  name: 'Kumaran',
  maths_marks: 32,
  english_marks: 73,
  science_marks: 84 },
  { _id: 5e16bc783e1ed3c2afe017cf,
  name: 'Lucky',
  maths_marks: 66,
  english_marks: 90,
  science_marks: 75 },
```

The bottom screenshot shows the Atom code editor with the following code:

```
1 var MongoClient = require('mongodb').MongoClient;
2 var url = "mongodb://localhost:27017/";
3
4 MongoClient.connect(url, function(err, db) {
5   if (err) throw err;
6   var dbo = db.db("student");
7   dbo.collection("studentmarks").update({name:"Mala"},{$inc:{'maths_marks':6}}, function(err, result) {
8     //{$inc: { quantity: -2, "metrics.orders": 1 } }
9
10    if (err) throw err;
11    console.log(result.name);
12    db.close();
13  });
14 });
15
```

5) List the names of students who got more than 50 marks in Maths Subject.

```
ukladmin@ukiadmpnc: ~/Desktop/nodejs
SyntaxError: Unexpected token )
    at createScript (vm.js:56:10)
    at Object.runInThisContext (vm.js:97:10)
    at Module._compile (module.js:549:28)
    at Object.Module._extensions..js (module.js:586:10)
    at Module.load (module.js:494:32)
    at tryModuleLoad (module.js:453:12)
    at Function.Module._load (module.js:445:3)
    at Module.runMain (module.js:611:10)
    at run (bootstrap_node.js:394:7)
    at startup (bootstrap_node.js:160:9)
ukladmin@ukiadmpnc:~/Desktop/nodejs$ node node1.js
(node:9450) DeprecationWarning: current Server Discovery and Monitoring engine is deprecated, and will be removed in a future version. To use the new Server Discovery and Monitoring engine, pass option { useUnifiedTopology: true } to the MongoClient constructor.
[ { _id: 5e16bb2c3e1ed3c2afe017c9,
  name: 'Mala',
  maths_marks: 57,
  english_marks: 53,
  science_marks: 72 },
  { _id: 5e16bb693e1ed3c2afe017ca,
  name: 'Vanu',
  maths_marks: 80,
  english_marks: 75,
  science_marks: 85 },
  { _id: 5e16bbe63e1ed3c2afe017cc,
  name: 'Arul',
  maths_marks: 78,
  english_marks: 85,
  science_marks: 80 },
  { _id: 5e16bc113e1ed3c2afe017cd,
  name: 'Shayu',
  maths_marks: 80,
  english_marks: 76,
  science_marks: 65 },
  { _id: 5e16bc783e1ed3c2afe017cf,
  name: 'Lucky',
  maths_marks: 66,
  english_marks: 90,
  science_marks: 75 },
  { _id: 5e16bca13e1ed3c2afe017d0,
  name: 'Gvi',
  maths_marks: 71,
  english_marks: 75,
  science_marks: 56 } ]
ukladmin@ukiadmpnc:~/Desktop/nodejs$
```

```
Atom
node1.js — ~/Desktop/nodejs — Atom
Project: q1node.js head.js q1.js node.js node1.js q1-1node.js Telemetry Consent Welcome
node.js.exe cliend.js notejs.js
nodejs
dist
distes2
node_m
head.js
node.js
node1.js
nodeser
notejs.js
npm-de
q1-1noc
q1.js
q1an.js
q1node
q1node
tail.htm
node1.js 7:64
LF UTF-8 JavaScript Not on branch 113109 files
```

6)Add a new column(field) for Average for all students.

```
ukiadmin@ukiadminpc: ~/Desktop/nodejs
ukiadmin@ukiadminpc: ~/Desktop/nodejs
ukiadmin@ukiadminpc: ~/Desktop/nodejs
at err (/home/ukiadmin/Desktop/nodejs/node_modules/mongodb/lib/operations/connect.js:210:7)
at connectCallback (/home/ukiadmin/Desktop/nodejs/node_modules/mongodb/lib/operations/connect.js:375:5)
at server.connect (/home/ukiadmin/Desktop/nodejs/node_modules/mongodb/lib/operations/connect.js:468:5)
at Server.connectHandler (/home/ukiadmin/Desktop/nodejs/node_modules/mongodb/lib/topologies/server.js:291:9)
ukiadmin@ukiadminpc:~/Desktop/nodejs$ node head.js
/home/ukiadmin/Desktop/nodejs/head.js:13
  });
  ^
SyntaxError: Unexpected token )
    at createScript (vm.js:56:10)
    at Object.runInThisContext (vm.js:97:10)
    at Module.compile (module.js:549:28)
    at Object.Module._extensions..js (module.js:586:10)
    at Module.load (module.js:494:32)
    at tryModuleLoad (module.js:453:12)
    at Function.Module._load (module.js:445:3)
    at Module.runMain (module.js:611:10)
    at run (bootstrap_node.js:394:7)
    at startup (bootstrap_node.js:160:9)
ukiadmin@ukiadminpc:~/Desktop/nodejs$ node head.js
(node:11220) DeprecationWarning: current Server Discovery and Monitoring engine is deprecated, and will be removed in a future version. To use the new Server Disc
over and Monitoring engine, pass option { useUnifiedTopology: true } to the MongoClient constructor.
/home/ukiadmin/Desktop/nodejs/node_modules/mongodb/lib/topologies/server.js:294
    throw err;
    ^
MongoError: the update operation document must contain atomic operators.
    at Function.create (/home/ukiadmin/Desktop/nodejs/node_modules/mongodb/lib/core/error.js:43:12)
    at toError (/home/ukiadmin/Desktop/nodejs/node_modules/mongodb/lib/utils.js:149:22)
    at checkForAtomicOperators (/home/ukiadmin/Desktop/nodejs/node_modules/mongodb/lib/operations/collection_ops.js:69:12)
    at Collection.updateMany (/home/ukiadmin/Desktop/nodejs/node_modules/mongodb/lib/collection.js:828:15)
    at /home/ukiadmin/Desktop/nodejs/head.js:9:34
    at executeCallback (/home/ukiadmin/Desktop/nodejs/node_modules/mongodb/lib/operations/execute_operation.js:74:5)
    at err (/home/ukiadmin/Desktop/nodejs/node_modules/mongodb/lib/operations/connect.js:210:7)
    at connectCallback (/home/ukiadmin/Desktop/nodejs/node_modules/mongodb/lib/operations/connect.js:375:5)
    at server.connect (/home/ukiadmin/Desktop/nodejs/node_modules/mongodb/lib/operations/connect.js:468:5)
    at Server.connectHandler (/home/ukiadmin/Desktop/nodejs/node_modules/mongodb/lib/topologies/server.js:291:9)
ukiadmin@ukiadminpc:~/Desktop/nodejs$ node head.js
(node:11250) DeprecationWarning: current Server Discovery and Monitoring engine is deprecated, and will be removed in a future version. To use the new Server Disc
over and Monitoring engine, pass option { useUnifiedTopology: true } to the MongoClient constructor.
0 document(s) updated
ukiadmin@ukiadminpc:~/Desktop/nodejs$ node head.js
(node:11349) DeprecationWarning: current Server Discovery and Monitoring engine is deprecated, and will be removed in a future version. To use the new Server Disc
over and Monitoring engine, pass option { useUnifiedTopology: true } to the MongoClient constructor.
28 document(s) updated
ukiadmin@ukiadminpc:~/Desktop/nodejs$
```

```
Atom
head.js -- ~/Desktop/nodejs -- Atom
Project  q1node.js  head.js  q1.js  node.js  node1.js  q1-1node.js  Telemetry Consent  Welcome
node.js.exe  1  var MongoClient = require('mongodb').MongoClient;
  cliend.js  2  var url = "mongodb://127.0.0.1:27017/";
  notejs.js  3
  nodejs  4  MongoClient.connect(url, function(err, db) {
    > dist  5    if (err) throw err;
    > distes2  6    var dbo = db.db("student");
    > node_m  7    // var myquery = { 'science.marks':45 };
    head.js  8    //var newvalues = {$set: {name: "John", 'english.marks':23, 'maths.marks':87}};
    node.js  9    dbo.collection("studentmarks").updateMany({}, {$set:{average:""}}, function(err, res) {
    node1.js 10    if (err) throw err;
    nodeser 11    console.log(res.result.nModified + " document(s) updated");
    notejs.js 12    db.close();
    npm-de 13  });
    q1-1noc 14  });
    q1.js
    q1an.js
    q1node
    q1node
    tail.htm
head.js 9:64  LF UTF-8 JavaScript 113457 files
```

```
ukiadmin@ukiadminpc: ~/Desktop/nodejs
ukiadmin@ukiadminpc: ~/Desktop/nodejs
ukiadmin@ukiadminpc: ~/Desktop/nodejs

maths_marks: '80',
english_marks: '75',
science_marks: '85',
average: '' },
{ _id: 5e3267eeb8f92918efe974a4,
  name: 'Kala',
  maths_marks: '32',
  english_marks: '46',
  science_marks: '53',
  average: '' },
{ _id: 5e3267eeb8f92918efe974a5,
  name: 'Arul',
  maths_marks: '78',
  english_marks: '85',
  science_marks: '80',
  average: '' },
{ _id: 5e3267eeb8f92918efe974a6,
  name: 'Shayu',
  maths_marks: '80',
  english_marks: '76',
  science_marks: '65',
  average: '' },
{ _id: 5e3267eeb8f92918efe974a7,
  name: 'Kumaran',
  maths_marks: '32',
  english_marks: '73',
  science_marks: '84',
  average: '' },
{ _id: 5e3267eeb8f92918efe974a8,
  name: 'Lucky',
  maths_marks: '66',
  english_marks: '90',
  science_marks: '45',
  average: '' },
{ _id: 5e3267eeb8f92918efe974a9,
  name: 'Gva',
  maths_marks: '71',
  english_marks: '75',
  science_marks: '56',
  average: '' },
{ _id: 5e3267eeb8f92918efe974aa,
  name: 'Raani',
  maths_marks: '41',
  english_marks: '65',
  science_marks: '88',
  average: '' } ]
ukiadmin@ukiadminpc:~/Desktop/nodejs$
```


7) Update Marks_Science=75 to Lucky .

```
ukladmin@ukladminpc: ~/Desktop/nodesjs
ukladmin@ukladminpc: ~/Desktop/nodesjs x
ukladmin@ukladminpc: ~/Desktop/nodesjs x
ukladmin@ukladminpc: ~/Desktop/nodesjs x

english_marks: '53',
science_marks: '72' },
{
  _id: 5e3267eeb8f92918efe974a3,
  name: 'Vanu',
  maths_marks: '80',
  english_marks: '75',
  science_marks: '85' },
{
  _id: 5e3267eeb8f92918efe974a4,
  name: 'Kala',
  maths_marks: '32',
  english_marks: '46',
  science_marks: '53' },
{
  _id: 5e3267eeb8f92918efe974a5,
  name: 'Arull',
  maths_marks: '78',
  english_marks: '85',
  science_marks: '80' },
{
  _id: 5e3267eeb8f92918efe974a6,
  name: 'Shayu',
  maths_marks: '80',
  english_marks: '76',
  science_marks: '65' },
{
  _id: 5e3267eeb8f92918efe974a7,
  name: 'Kunaran',
  maths_marks: '32',
  english_marks: '73',
  science_marks: '84' },
{
  _id: 5e3267eeb8f92918efe974a8,
  name: 'Lucky',
  maths_marks: '66',
  english_marks: '90',
  science_marks: '45' },
{
  _id: 5e3267eeb8f92918efe974a9,
  name: 'Gva',
  maths_marks: '71',
  english_marks: '75',
  science_marks: '56' },
{
  _id: 5e3267eeb8f92918efe974aa,
  name: 'Raam',
  maths_marks: '41',
  english_marks: '65',
  science_marks: '88' } ]
ukladmin@ukladminpc: ~/Desktop/nodesjs$ node head.js
(node:18721) DeprecationWarning: current Server Discovery and Monitoring engine is deprecated, and will be removed in a future version. To use the new Server Discovery and Monitoring engine, pass option { useUnifiedTopology: true } to the MongoClient constructor.
0 document(s) updated
ukladmin@ukladminpc: ~/Desktop/nodesjs$
```

The screenshot shows the Atom code editor with a project titled "head.js -- ~/Desktop/nodes.js -- Atom". The editor is displaying the file "head.js" with the following code:

```

1 var MongoClient = require('mongodb').MongoClient;
2 var url = "mongodb://127.0.0.1:27017/";
3
4 MongoClient.connect(url, function(err, db) {
5   if (err) throw err;
6   var dbo = db.db("student");
7   var myquery = { science_marks: 45 };
8   var newvalues = {$set: {name: "Lucky", science_marks: 75}};
9   dbo.collection("studentmarks").updateMany(myquery, newvalues, function(err, res) {
10     if (err) throw err;
11     console.log(res.result.nModified + " document(s) updated");
12     db.close();
13   });
14 });

```

The file explorer on the left shows the following structure:

- note.js.exe
- cliend.js
- notejs.js
- nodes
 - dist
 - dist.es2
 - node_m
 - head.js
 - node.js
 - node1.js
 - nodeser
 - notejs.js
 - npm-de
 - q1-node
 - q1.js
 - q1an.js
 - q1node
 - q1node
 - tail.htm

The status bar at the bottom indicates the current file is "head.js" at line 8, column 57. The encoding is "UTF-8" and the language is "JavaScript".

8) List the names who got more than 50 marks in all subjects.

```
ukladmin@ukladminpc: ~/Desktop/nodejs
SyntaxError: Unexpected token )
    at createScript (vm.js:56:10)
    at Object.runInThisContext (vm.js:97:10)
    at Module._compile (module.js:549:28)
    at Object.Module._extensions..js (module.js:586:10)
    at Module.load (module.js:494:32)
    at tryModuleLoad (module.js:453:12)
    at Function.Module._load (module.js:445:3)
    at Module.runMain (module.js:611:10)
    at run (bootstrap_node.js:394:7)
    at startup (bootstrap_node.js:160:9)
ukladmin@ukladminpc:~/Desktop/nodejs$ node node1.js
(node:9450) DeprecationWarning: current Server Discovery and Monitoring engine is deprecated, and will be removed in a future version. To use the new Server Discovery and Monitoring engine, pass option { useUnifiedTopology: true } to the MongoClient constructor.
[ { _id: 5e16bb2c3e1ed3c2afe017c9,
  name: 'Mala',
  maths_marks: 57,
  english_marks: 53,
  science_marks: 72 },
  { _id: 5e16bb93e1ed3c2afe017ca,
  name: 'Vanu',
  maths_marks: 80,
  english_marks: 75,
  science_marks: 85 },
  { _id: 5e16bbe63e1ed3c2afe017cc,
  name: 'Arull',
  maths_marks: 78,
  english_marks: 85,
  science_marks: 80 },
  { _id: 5e16bc113e1ed3c2afe017cd,
  name: 'Shayu',
  maths_marks: 80,
  english_marks: 76,
  science_marks: 65 },
  { _id: 5e16bc783e1ed3c2afe017cf,
  name: 'Lucky',
  maths_marks: 66,
  english_marks: 90,
  science_marks: 75 },
  { _id: 5e16bca13e1ed3c2afe017d0,
  name: 'Gvi',
  maths_marks: 71,
  english_marks: 75,
  science_marks: 56 } ]
ukladmin@ukladminpc:~/Desktop/nodejs$
```

```
Atom
node1.js -- ~/Desktop/nodejs - Atom
Project: q1node.js head.js q1.js node.js node1.js q1-1node.js Telemetry Consent Welcome
node1.js
1 var MongoClient = require('mongodb').MongoClient;
2 var url = "mongodb://localhost:27017/";
3
4 MongoClient.connect(url, function(err, db) {
5   if (err) throw err;
6   var dbo = db.db("studentmarks");
7   dbo.collection("studentmarks").find({"maths_marks":{$gte:50},"english_marks":{$gte:50},"science_marks":{$gte:50}}).toArray(function(err,
8     // {"fieldname":{"$gte:100}}
9
10   if (err) throw err;
11   console.log(result);
12   db.close();
13 });
14 })
15
node1.js 7:117 LF UTF-8 JavaScript Not on branch 113128 files
```

9) List the names who got less than 50 marks in Maths subject and more than 50 marks in English


```
ukladmin@ukladminpc: ~/Desktop/nodejs
SyntaxError: Unexpected token )
    at createScript (vm.js:56:10)
    at Object.runInThisContext (vm.js:97:10)
    at Module._compile (module.js:549:28)
    at Object.Module._extensions..js (module.js:586:10)
    at Module.load (module.js:494:32)
    at tryModuleLoad (module.js:453:12)
    at Function.Module._load (module.js:445:3)
    at Module.runMain (module.js:611:10)
    at run (bootstrap_node.js:394:7)
    at startup (bootstrap_node.js:160:9)
ukladmin@ukladminpc:~/Desktop/nodejs$ node node1.js
(node:9734) DeprecationWarning: current Server Discovery and Monitoring engine is deprecated, and will be removed in a future version. To use the new Server Discovery and Monitoring engine, pass option { useUnifiedTopology: true } to the MongoClient constructor.
[ { _id: 5e16bb2c3e1ed3c2afe017c9,
  name: 'Mala',
  maths_marks: 57,
  english_marks: 53,
  science_marks: 72 },
  { _id: 5e16bb93e1ed3c2afe017ca,
  name: 'Vanu',
  maths_marks: 80,
  english_marks: 75,
  science_marks: 85 },
  { _id: 5e16bbe63e1ed3c2afe017cc,
  name: 'Arul',
  maths_marks: 78,
  english_marks: 85,
  science_marks: 80 },
  { _id: 5e16bc113e1ed3c2afe017cd,
  name: 'Shayu',
  maths_marks: 80,
  english_marks: 76,
  science_marks: 65 },
  { _id: 5e16bc783e1ed3c2afe017cf,
  name: 'Lucky',
  maths_marks: 66,
  english_marks: 90,
  science_marks: 75 },
  { _id: 5e16bca13e1ed3c2afe017d0,
  name: 'Gvi',
  maths_marks: 71,
  english_marks: 75,
  science_marks: 56 } ]
ukladmin@ukladminpc:~/Desktop/nodejs$
```

```
Atom
node1.js — ~/Desktop/nodejs — Atom
Project: q1node.js • head.js • q1.js • node.js • node1.js • q1-1node.js • Telemetry Consent • Welcome
node1.js
1 var MongoClient = require('mongodb').MongoClient;
2 var url = "mongodb://localhost:27017/";
3
4 MongoClient.connect(url, function(err, db) {
5   if (err) throw err;
6   var dbo = db.db("student");
7   dbo.collection("studentmarks").find({"maths_marks":{$gte:50},"english_marks":{$gte:50}}).toArray(function(err, result) {
8     // {"fieldname":{"$gte:100}}
9
10    if (err) throw err;
11    console.log(result);
12    db.close();
13  });
14 })
15
16 npm-de
17 q1-1node
18 q1.js
19 q1an.js
20 q1node
21 tail.htm
```

10) List the names who got less than 40 in both Maths and Science.

```
ukladmin@ukladminpc: ~/Desktop/nodejs
at Object.runInThisContext (vm.js:97:10)
at Module._compile (module.js:549:28)
at Object.Module._extensions..js (module.js:586:10)
at Module.load (module.js:494:32)
at tryModuleLoad (module.js:453:12)
at Function.Module._load (module.js:445:3)
at Module.runMain (module.js:611:10)
at run (bootstrap_node.js:394:7)
at startup (bootstrap_node.js:160:9)
ukladmin@ukladminpc:~/Desktop/nodejs$ node node1.js
(node:9734) DeprecationWarning: current Server Discovery and Monitoring engine is deprecated, and will be removed in a future version. To use the new Server Discovery and Monitoring engine, pass option { useUnifiedTopology: true } to the MongoClient constructor.
[ { _id: 5e16bb2c3e1ed3c2afe017c9,
  name: 'Male',
  maths_marks: 57,
  english_marks: 53,
  science_marks: 72 },
  { _id: 5e16bb693e1ed3c2afe017ca,
  name: 'Vanu',
  maths_marks: 80,
  english_marks: 75,
  science_marks: 85 },
  { _id: 5e16bbe63e1ed3c2afe017cc,
  name: 'Aruli',
  maths_marks: 78,
  english_marks: 85,
  science_marks: 80 },
  { _id: 5e16bc113e1ed3c2afe017cd,
  name: 'Shayu',
  maths_marks: 80,
  english_marks: 76,
  science_marks: 65 },
  { _id: 5e16bc783e1ed3c2afe017cf,
  name: 'Lucky',
  maths_marks: 66,
  english_marks: 90,
  science_marks: 75 },
  { _id: 5e16bca13e1ed3c2afe017d0,
  name: 'Gva',
  maths_marks: 71,
  english_marks: 75,
  science_marks: 50 } ]
ukladmin@ukladminpc:~/Desktop/nodejs$ node node1.js
(node:9810) DeprecationWarning: current Server Discovery and Monitoring engine is deprecated, and will be removed in a future version. To use the new Server Discovery and Monitoring engine, pass option { useUnifiedTopology: true } to the MongoClient constructor.
[]
ukladmin@ukladminpc:~/Desktop/nodejs$
```

```
Atom
node1.js — ~/Desktop/nodejs — Atom
Project: q1node.js, head.js, q1.js, node.js, node1.js, q1-1node.js, Telemetry Consent, Welcome
node1.js
1 var MongoClient = require('mongodb').MongoClient;
2 var url = "mongodb://localhost:27017/";
3
4 MongoClient.connect(url, function(err, db) {
5   if (err) throw err;
6   var dbo = db.db("studentmarks");
7   dbo.collection("studentmarks").find({"maths_marks":{$lte:40},"english_marks":{$lte:40}}).toArray(function(err, result) {
8     // {"fieldname":{"$gte:100}}
9
10    if (err) throw err;
11    console.log(result);
12    db.close();
13  });
14 })
```

11) Remove Science column/field for Raam

12) Update John's Math mark as 87 and English mark as 23, if john not available upsert

```
ukladmin@ukladminpc: ~/Desktop/nodejs
science_marks: '56' },
{
  _id: '5e3267eeb8f92918efe974aa',
  name: 'Rasam',
  maths_marks: '41',
  english_marks: '65',
  science_marks: '88' } ]
ukladmin@ukladminpc:~/Desktop/nodejs$ node head.js
(node:1972) DeprecationWarning: current Server Discovery and Monitoring engine is deprecated, and will be removed in a future version. To use the new Server Discovery and Monitoring engine, pass option { useUnifiedTopology: true } to the MongoClient constructor.
0 document(s) updated
ukladmin@ukladminpc:~/Desktop/nodejs$ node node.js
/home/ukladmin/Desktop/nodejs/node.js:7
  dbo.collection("studentmarks").updateMany({$set: {'english_marks':23, 'maths_marks':87}}, function(err, result) {
  ^
SyntaxError: Unexpected token (
    at createScript (vm.js:56:10)
    at Object.runInThisContext (vm.js:97:10)
    at Module._compile (module.js:549:28)
    at Object.Module._extensions..js (module.js:586:10)
    at Module.load (module.js:494:32)
    at tryModuleLoad (module.js:453:12)
    at Function.Module._load (module.js:445:3)
    at Module.runMain (module.js:611:10)
    at Module.run (bootstrap_node.js:394:7)
    at startup (bootstrap_node.js:160:9)
ukladmin@ukladminpc:~/Desktop/nodejs$ node head.js
/home/ukladmin/Desktop/nodejs/head.js:8
var newvalues = {$set: {name: "John", 'english_marks':23, 'maths_marks':87}} };
^
SyntaxError: missing ) after argument list
    at createScript (vm.js:56:10)
    at Object.runInThisContext (vm.js:97:10)
    at Module._compile (module.js:549:28)
    at Object.Module._extensions..js (module.js:586:10)
    at Module.load (module.js:494:32)
    at tryModuleLoad (module.js:453:12)
    at Function.Module._load (module.js:445:3)
    at Module.runMain (module.js:611:10)
    at Module.run (bootstrap_node.js:394:7)
    at startup (bootstrap_node.js:160:9)
ukladmin@ukladminpc:~/Desktop/nodejs$ node head.js
(node:19973) DeprecationWarning: current Server Discovery and Monitoring engine is deprecated, and will be removed in a future version. To use the new Server Discovery and Monitoring engine, pass option { useUnifiedTopology: true } to the MongoClient constructor.
0 document(s) updated
ukladmin@ukladminpc:~/Desktop/nodejs$
```

```
Atom
head.js -- ~/Desktop/nodejs
Project: q1node.js | head.js | q1.js | node.js | node1.js | q1-1node.js | Telemetry Consent | Welcome
1 var MongoClient = require('mongodb').MongoClient;
2 var url = "mongodb://127.0.0.1:27017/";
3
4 MongoClient.connect(url, function(err, db) {
5   if (err) throw err;
6   var dbo = db.db("student");
7   var myquery = { science_marks: 45 };
8   var newvalues = {$set: {name: "John", 'english_marks':23, 'maths_marks':87}};
9   dbo.collection("studentmarks").updateMany(myquery, newvalues, function(err, res) {
10    if (err) throw err;
11    console.log(res.result.nModified + " document(s) updated");
12    db.close();
13  });
14 });
```

13) Rename the english_marks column/field for John to science_marks

```
ukladmin@ukladminpc: ~/Desktop/nodejs
ukladmin@ukladminpc: ~/Desktop/nodejs
ukladmin@ukladminpc: ~/Desktop/nodejs
ukladmin@ukladminpc: ~/Desktop/nodejs
ukladmin@ukladminpc: ~/Desktop/nodejs$ node head.js
SyntaxError: Unexpected token )
    at createScript (vm.js:56:10)
    at Object.runInThisContext (vm.js:97:10)
    at Module._compile (module.js:549:28)
    at Object.Module._extensions..js (module.js:586:10)
    at Module.load (module.js:494:32)
    at tryModuleLoad (module.js:453:12)
    at Function.Module._load (module.js:445:3)
    at Module.runMain (module.js:611:10)
    at run (bootstrap_node.js:394:7)
    at startup (bootstrap_node.js:160:9)
ukladmin@ukladminpc: ~/Desktop/nodejs$ node head.js
(node:11220) DeprecationWarning: current Server Discovery and Monitoring engine is deprecated, and will be removed in a future version. To use the new Server Discovery and Monitoring engine, pass option { useUnifiedTopology: true } to the MongoClient constructor.
/home/ukladmin/Desktop/nodejs/node_modules/mongodb/lib/topologies/server.js:294
    throw err;
    ^
MongoError: the update operation document must contain atomic operators.
    at Function.create (/home/ukladmin/Desktop/nodejs/node_modules/mongodb/lib/core/error.js:43:12)
    at toError (/home/ukladmin/Desktop/nodejs/node_modules/mongodb/lib/utils.js:149:22)
    at checkForAtomicOperators (/home/ukladmin/Desktop/nodejs/node_modules/mongodb/lib/operations/collection_ops.js:69:12)
    at Collection.updateMany (/home/ukladmin/Desktop/nodejs/node_modules/mongodb/lib/collection.js:828:15)
    at /home/ukladmin/Desktop/nodejs/node_modules/mongodb/lib/operations/execute_operation.js:74:5
    at err (/home/ukladmin/Desktop/nodejs/node_modules/mongodb/lib/operations/connect.js:210:7)
    at connectCallback (/home/ukladmin/Desktop/nodejs/node_modules/mongodb/lib/operations/connect.js:375:5)
    at server.connect (/home/ukladmin/Desktop/nodejs/node_modules/mongodb/lib/operations/connect.js:468:5)
    at Server.connectHandler (/home/ukladmin/Desktop/nodejs/node_modules/mongodb/lib/topologies/server.js:291:9)
ukladmin@ukladminpc: ~/Desktop/nodejs$ node head.js
(node:11250) DeprecationWarning: current Server Discovery and Monitoring engine is deprecated, and will be removed in a future version. To use the new Server Discovery and Monitoring engine, pass option { useUnifiedTopology: true } to the MongoClient constructor.
0 document(s) updated
ukladmin@ukladminpc: ~/Desktop/nodejs$
```

```
Atom
head.js — ~/Desktop/nodejs — Atom
Project: q1node.js, head.js, q1.js, node.js, node1.js, q1-1node.js, Telemetry Consent, Welcome
node.js
  cliend.js
  notejs.js
  dist
  distes2
  distes_m
  head.js
  node.js
  node1.js
  nodeser
  notejs.js
  npm-de
  q1-1noc
  q1.js
  q1an.js
  q1node
  q1node
  tail.htm
head.js
1 var MongoClient = require('mongodb').MongoClient;
2 var url = "mongodb://127.0.0.1:27017/";
3
4 MongoClient.connect(url, function(err, db) {
5   if (err) throw err;
6   var dbo = db.db("student");
7   // var myquery = { science_marks:45 };
8   //var newvalues = {$set: {name: "John", english_marks:123, maths_marks:87}};
9   dbo.collection("studentmarks").updateMany({name:"John"},{$set:{english_marks:"science_marks"}}, function(err, res) {
10    if (err) throw err;
11    console.log(res.result.nModified + " document(s) updated");
12    db.close();
13  });
14 });
```

14) Remove Kumaran's document from collection

15) Find Kala's or Aruli's math_marks and science_marks


```
ukiadmin@ukiadminpc: ~/Desktop/nodejs
ukiadmin@ukiadminpc: ~/Desktop/nodejs
ukiadmin@ukiadminpc: ~/Desktop/nodejs
ukiadmin@ukiadminpc: ~/Desktop/nodejs$ node node1.js
/home/ukiadmin/Desktop/nodejs/node1.js:7
  dbo.collection("studentmarks").find({$or:[{name:"Kala"},{name:"Aruli"}],{projection:{_id:0,name:1,maths_marks:1,science_marks:1}}}).toArray(function(err, resul
t) {
                                     ^
SyntaxError: Unexpected token {
    at createScript (vm.js:56:10)
    at Object.runInThisContext (vm.js:97:10)
    at Module._compile (module.js:549:28)
    at Object.Module._extensions..js (module.js:586:10)
    at Module.load (module.js:494:32)
    at tryModuleLoad (module.js:453:12)
    at Function.Module._load (module.js:445:3)
    at Module.runMain (module.js:611:10)
    at run (bootstrap_node.js:394:7)
    at startup (bootstrap_node.js:160:9)
ukiadmin@ukiadminpc: ~/Desktop/nodejs$ node node1.js
(node:11644) DeprecationWarning: current Server Discovery and Monitoring engine is deprecated, and will be removed in a future version. To use the new Server Disc
over and Monitoring engine, pass option { useUnifiedTopology: true } to the MongoClient constructor.
[ { name: 'Kala', maths_marks: 32, science_marks: 53 },
  { name: 'Aruli', maths_marks: 78, science_marks: 80 },
  { name: 'Kala', maths_marks: '32', science_marks: '53' },
  { name: 'Aruli', maths_marks: '78', science_marks: '80' },
  { name: 'Kala', maths_marks: '32', science_marks: '53' },
  { name: 'Aruli', maths_marks: '78', science_marks: '80' } ]
ukiadmin@ukiadminpc: ~/Desktop/nodejs$
```

```
Atom
node1.js -- ~/Desktop/nodejs -- Atom
Project  q1node.js  head.js  q1.js  node.js  node1.js  q1-1node.js  Telemetry Consent  Welcome
nodejs.exe  1  MongoClient = require('mongodb').MongoClient;
2  = "mongodb://localhost:27017/";
3
4  .ent.connect(url, function(err, db) {
5  'r) throw err;
6  io = db.db("student");
7  illection("studentmarks").find({$or:[{name:"Kala"},{name:"Aruli"}],{projection:{_id:0,name:1,maths_marks:1,science_marks:1}}}).toArray(fu
8  'fieldname':{$gte:100})
9
10 err) throw err;
11 ole.log(result);
12 lose();
13
14 nodejs.js
15 npm-de
16 q1-1noc
17 q1.js
18 q1an.js
19 q1node
20 q1node
21 tail.htm
node1.js  7:133  LF  UTF-8  JavaScript  113476 files
```